

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Saltzmann's solution for determination of N₂O₃ in gaseous fuels according to DIN 51864

Revision date: 28.03.2023

Product code: 14201

Page 1 of 10

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Saltzmann's solution for determination of N₂O₃ in gaseous fuels according to DIN 51864

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Laboratory chemical

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name:	AnalytiChem GmbH	
Street:	Stempelstraße 6	
Place:	D-47167 Duisburg	
Telephone:	0203/5194-0	Telefax: 0203/5194-290
e-mail:	info@analytichem.de	
Contact person:	Abteilung Produktsicherheit	Telephone: 0203/5194-107/117
e-mail:	produktsicherheit@analytichem.de	
Internet:	www.analytichem.de	
Responsible Department:	Abteilung Produktsicherheit	

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

Further Information

This product is a mixture. REACH Registration Number see section 3.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

2.2. Label elements

Regulation (EC) No 1272/2008

Special labelling of certain mixtures

EUH208	Contains sulphanilic acid. May produce an allergic reaction.
EUH210	Safety data sheet available on request.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixtures in aqueous solution

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Saltzmann's solution for determination of N2O3 in gaseous fuels according to DIN 51864

Revision date: 28.03.2023

Product code: 14201

Page 2 of 10

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
64-19-7	acetic acid			5 - < 10 %
	200-580-7	607-002-00-6	01-2119475328-30	
	Flam. Liq. 3, Skin Corr. 1A; H226 H314			
121-57-3	sulphanilic acid			< 1 %
	204-482-5	612-014-00-X		
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1; H315 H319 H317			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
64-19-7	200-580-7	acetic acid	5 - < 10 %
	inhalation: LC50 = 11,4 mg/l (vapours); oral: LD50 = 3310 mg/kg Skin Corr. 1A; H314: >= 90 - 100 Skin Corr. 1B; H314: >= 25 - < 90 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 25		
121-57-3	204-482-5	sulphanilic acid	< 1 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg		

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

No data available

After inhalation

Provide fresh air.

After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Rinse mouth immediately and drink plenty of water.

Call a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Allergic reactions

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Saltzmann's solution for determination of N₂O₃ in gaseous fuels according to DIN 51864

Revision date: 28.03.2023

Product code: 14201

Page 3 of 10

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Non-combustible liquids

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

Suppress gases/vapours/mists with water spray jet.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Do not breathe vapour/aerosol.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Saltzmann's solution for determination of N2O3 in gaseous fuels according to DIN 51864

Revision date: 28.03.2023

Product code: 14201

Page 4 of 10

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Further information on handling

Take off contaminated clothing.
Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.
Store in a dry place.

Hints on joint storage

No data available

Further information on storage conditions

Store in a dry place.

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m ³	fib/cm ³	Category	Origin
64-19-7	Acetic acid	10	25		TWA (8 h)	
		20	50		STEL (15 min)	

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
64-19-7	acetic acid			
	Worker DNEL, long-term	inhalation	local	25 mg/m ³
	Worker DNEL, acute	inhalation	local	25 mg/m ³
	Consumer DNEL, long-term	inhalation	local	25 mg/m ³
	Consumer DNEL, acute	inhalation	local	25 mg/m ³
121-57-3	sulphanilic acid			
	Worker DNEL, long-term	inhalation	systemic	13,33 mg/m ³
	Worker DNEL, long-term	dermal	systemic	3,33 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	6,67 mg/m ³
	Consumer DNEL, long-term	dermal	systemic	1,67 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	1,67 mg/kg bw/day

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Saltzmann's solution for determination of N2O3 in gaseous fuels according to DIN 51864

Revision date: 28.03.2023

Product code: 14201

Page 5 of 10

PNEC values

CAS No	Substance	Value
Environmental compartment		
64-19-7	acetic acid	
Freshwater		3,058 mg/l
Freshwater (intermittent releases)		30,58 mg/l
Marine water		0,306 mg/l
Freshwater sediment		11,36 mg/kg
Marine sediment		1,136 mg/kg
Micro-organisms in sewage treatment plants (STP)		85 mg/l
Soil		0,47 mg/kg
121-57-3	sulphanilic acid	
Freshwater		0,023 mg/l
Freshwater (intermittent releases)		0,23 mg/l
Marine water		0,002 mg/l
Micro-organisms in sewage treatment plants (STP)		100 mg/l

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Trade name/designation: KCL 741 Dermatril® L
Recommended material: NBR (Nitrile rubber) 0,11 mm
Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: KCL 741 Dermatril® L
Recommended material: NBR (Nitrile rubber) 0,11 mm
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Saltzmann's solution for determination of N₂O₃ in gaseous fuels according to DIN 51864

Revision date: 28.03.2023

Product code: 14201

Page 6 of 10

Skin protection

Wear suitable protective clothing.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid	
Colour:	colourless	
Odour:	odourless	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		not determined
Flammability:		not determined not applicable
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Flash point:		not determined
Auto-ignition temperature:		not determined
Decomposition temperature:		not determined
pH-Value:		not determined
Viscosity / kinematic:		not determined
Water solubility:		not determined
Solubility in other solvents		not determined
Partition coefficient n-octanol/water:		not determined
Vapour pressure:		not determined
Vapour pressure:		not determined
Density:		1,0057 g/cm ³
Bulk density:		not determined
Relative vapour density:		not determined

9.2. Other information

Information with regard to physical hazard classes

Explosive properties		not applicable
Sustaining combustion:		No data available
Self-ignition temperature		
Solid:		not determined
Gas:		not applicable
Oxidizing properties		Not oxidising.

Other safety characteristics

Evaporation rate:		not determined
Solvent separation test:		not determined
Solvent content:		not determined
Solid content:		not determined
Sublimation point:		not determined
Softening point:		not determined
Pour point:		not determined

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Saltzmann's solution for determination of N2O3 in gaseous fuels according to DIN 51864

Revision date: 28.03.2023

Product code: 14201

Page 7 of 10

not determined:

Viscosity / dynamic:

not determined

Flow time:

not determined

Further Information

not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

No data available

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

There are no data available on the mixture itself.

Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64-19-7	acetic acid				
	oral	LD50 3310 mg/kg	Rat	J Ind Hyg Toxicol, Vol 23, PP 78-82 (194)	The sodium salt of acetic acid was admin
	inhalation (4 h) vapour	LC50 11,4 mg/l	Rat	Study report (1980)	OECD Guideline 403
121-57-3	sulphanilic acid				
	oral	LD50 > 2000 mg/kg	Rat	Study report (2010)	OECD Guideline 423
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2010)	OECD Guideline 402

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitising effects

Contains sulphanilic acid. May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Saltzmann's solution for determination of N2O3 in gaseous fuels according to DIN 51864

Revision date: 28.03.2023

Product code: 14201

Page 8 of 10

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

There are no data available on the mixture itself.

Additional information on tests

There are no data available on the mixture itself.

Practical experience

There are no data available on the mixture itself.

11.2. Information on other hazards

Other information

There are no data available on the mixture itself.

Further information

There are no data available on the mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the mixture itself.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
64-19-7	acetic acid					
	Acute fish toxicity	LC50 > 1000 mg/l	96 h	Oncorhynchus mykiss	Study report (2005)	other: SOP E257
	Acute algae toxicity	ErC50 > 1000 mg/l	72 h	Skeletonema costatum	Study report (2005)	ISO 10253
	Acute crustacea toxicity	EC50 > 1000 mg/l	48 h	Daphnia magna	Study report (1990)	OECD Guideline 202
121-57-3	sulphanilic acid					
	Acute fish toxicity	LC50 > 100 mg/l	96 h	Danio rerio	Study report (2010)	OECD Guideline 203
	Acute algae toxicity	ErC50 32 mg/l	72 h	Desmodesmus subspicatus	Study report (2010)	OECD Guideline 201
	Acute crustacea toxicity	EC50 23 mg/l	48 h	Daphnia magna	Study report (2010)	OECD Guideline 202

12.2. Persistence and degradability

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64-19-7	acetic acid	-0,17
121-57-3	sulphanilic acid	-2,298

BCF

CAS No	Chemical name	BCF	Species	Source
64-19-7	acetic acid	3,16	fish	Environ. Toxicol. Ch

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Saltzmann's solution for determination of N₂O₃ in gaseous fuels according to DIN 51864

Revision date: 28.03.2023

Product code: 14201

Page 9 of 10

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

There are no data available on the mixture itself.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

There are no data available on the mixture itself.

Further information

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Do not empty into drains.

Contaminated packaging

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

Land transport (ADR/RID)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Saltzmann's solution for determination of N₂O₃ in gaseous fuels according to DIN 51864

Revision date: 28.03.2023

Product code: 14201

Page 10 of 10

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 40, Entry 75

Information according to 2012/18/EU
(SEVESO III):

Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Water hazard class (D):

1 - slightly hazardous to water

SECTION 16: Other information

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
EUH208	Contains sulphanilic acid. May produce an allergic reaction.
EUH210	Safety data sheet available on request.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)